

MEMORANDUM

TO: Paul E. Foster, P.E.

THROUGH: Tammy M. Henry, P.E.

FROM: Shaikh A. Tayeb, P.E.

SUBJECT: Title V Significant Permit Modification: Delaware Solid Waste Authority-Cherry Island Landfill (CIL)

Proposed Permit: AQM-003/00111-Renewal 1(Revision 2)

DATE: November 13, 2009

Background

The Department ("AQM") issued the above referenced draft\proposed permit to DSWA on 9/4/09 and to EPA Region III on 9/3/09 for comments. AQM advertised DSWA's application and the draft\proposed permit for 30 days. The public comments period ended on 10/6/09

Request for public hearing and comments on the drat\proposed permit.

Request for public hearing	Comments from EPA	Comments from DSWA
None	None	Yes. A total of 17 comments.

DSWA comments and AQM responses

The following table summarizes DSWA comments and AQM responses.

Line Item	Permit Condition	DSWA Comment	Responses/Actions taken by AQM
1	General	No information was provided to document or justify the updates incorporated into the permit revision (other than those submitted directly by DSWA). A "track changes" version of the permit was requested, as was a Word document, but neither were provided. DSWA requests that such documentation be provided to the permittees for more efficient review of modified or new conditions. Without such documentation important details can be unintentionally overlooked or misconstrued.	AQM provided references of 'other changes' (other than those submitted by DSWA) with permit condition and page numbers to DSWA via an email on 09/22/09. AQM uses the 'track changes' version of the permit for internal review.
2	General	Title V permit duration should be 5 years from effective date to expiration. Revision 1 shows an expiration of January 19, 2012	AQM-003/00111-Renewal 1(Rev. 2) is a significant permit modification of AQM-003/00111-Renewal 1(Revision 1). This is not a Title V permit renewal. Therefore, the original expiration date of the existing Title V operating permit will remain the same, 1/19/12. Note that DSWA used an incorrect

MEMORANDUM

Title V Significant Permit Modification: DSWA-CIL.

Proposed Permit: AQM-003/00111-Renewal 1(Rev. 2)

November 13, 2009

Page 2

Line Item	Permit Condition	DSWA Comment	Responses/Actions taken by AQM
			permit number on letter with comments dated 10/5/09.
3	General	The new permit number AQM-003/00111-RENEWAL 1 (REVISION 1) is unnecessarily long. It will not fit into the Department's own form AQM-1001BB. Please revise so that the permit number is compatible with reporting forms.	The new permit number AQM-003/00111-Renewal 1(Rev. 2) replaces the previous number AQM-003/00111-Renewal 1(Revision 2). As discussed in the past, for any Title V reporting, 'Renewal' can be replaced by 'R' with appropriate notation mark.
4	Condition 2 (e)(2)	This section lists several versions of AP-42 that are not available on EPA's Technology Transfer Network. The most recent final version of section 2.4 of AP-42 available is Supplement E dated November 1998.	Supplement E dated November 1998 has been added to Condition 2(e)(2). See Page 5.
5	Condition 3 – Table 1 (a)(1)(ix)(B) and (f)(1)(x)	Emission determinations from passive flares are qualitative at best. Using maximum rated flare capacity is not reasonable. Passive flares are temporary odor control devices. DSWA requests that their emissions not be accounted for compliance measures.	These conditions remain unchanged. See Pages 16 and 39. Although passive flares are permitted to use as temporary odor control devices, these units are being used in the landfill regularly. As for example, in 2008 calendar year, CIL used passive flares for 351 days, totaling 21,624 hours. From January through June 2009 the facility used passive flares for 147 days, totaling 7,560 hours. Note that all emissions from the landfill must be counted. Therefore, CIL must count passive flare emissions based on the best engineering practice and the actual hours of operation and include this information to emission inventory report. It can be noted that AQM had multiple conversations with CIL in the past about passive flare emissions. AQM requires that CIL submits passive flare emissions information with Title V renewal application.
6	Condition 3 – Table 1 (b)(1)(x)(C)	Quarterly reporting of flare and H ₂ S pretreatment system operation is cumbersome and not necessary. Information on operation is included in semiannual reports.	The quarterly reporting requirement of H ₂ S pretreatment system outlined by Condition 3-Table 1(b)(1)(x)(C) will remain unchanged. The Department has an ongoing concern that this unit is often not functional. Quarterly report will update AQM on the status of H ₂ S pretreatment system.

MEMORANDUM

Title V Significant Permit Modification: DSWA-CIL.

Proposed Permit: AQM-003/00111-Renewal 1(Rev. 2)

November 13, 2009

Page 3

Line Item	Permit Condition	DSWA Comment	Responses/Actions taken by AQM
			See Page 18.
7	Condition 3 – Table 1 (b)(1)(iii)(D)	DSWA requests that the normal operating hours be adjusted to only include Monday through Friday.	<p>This condition has been revised. See Page 19.</p> <p>The normal operating hours currently listed in the permit are Monday through Saturday 0700 through 1500. DSWA requested to remove Saturday from the normal operating hours. Although the landfill is open, all administrative offices and LFG field crews are not working. This is consistent with other portions of the permit such as daily visible emissions on the passive flares. This time change would allow for 4 hours to restart the plant rather than 1 hour, in the case of an unplanned shutdown. From reviewing the records in the semiannual reports, the facility strives to meet the 1 hour goal at all times, even during non-operating hours, and CIL will continue to do so on Saturdays.</p>
8	Condition 3 – Table 1 (b)(1)(iv)(B)	The last sentence should include the phrase “whichever is higher” after specifying less than 200 ppm or 90% H ₂ S removal efficiency.	<p>Word ‘whichever is higher’ is added to the last sentence of this permit condition.</p> <p>See Page 21.</p>
9	Condition 3 – Table 1 (c)(1)(xi)(A)	The requirements of the section are unclear. LandGEM calculations are submitted to the Department annually as a part of the emission inventory reporting. Additional LandGEM reporting is unnecessary.	<p>The compliance certification is based on Condition 3(c)(3). Condition 3 – Table 1 (c)(1)(xi)(A) identifies the calculation procedures for the maximum gas generation flow rate from the landfill. This section does not require CIL to repeat the LandGEM reporting.</p> <p>Condition 3 – Table 1 (c)(1)(xi)(A) remains unchanged.</p>
10	Condition 3 – Table 1 (c)(1)(vii)(F) and (G)	It is unclear what testing equipment these sections are referring to. Sections (A) through (E) of (c)(1)(vii) address the equipment used in surface emission monitoring. These two sections appear to refer to wellhead monitoring equipment (which is performed with	<p>Condition 3 –Table 1 (c)(1)(vii)(F) refers to 40 CFR Part 60.753(c)(1). During the wellhead monitoring, the facility has an option to comply with wellhead monitoring requirements [either nitrogen (<20%) or oxygen (<5%)]. As</p>

MEMORANDUM

Title V Significant Permit Modification: DSWA-CIL.

Proposed Permit: AQM-003/00111-Renewal 1(Rev. 2)

November 13, 2009

Page 4

Line Item	Permit Condition	DSWA Comment	Responses/Actions taken by AQM
		<p>a GEM, or equivalent). Please clarify.</p> <p>Additionally, references to sections 3.1.3, 4.2, and 4.4 in method 21 do not exist in the method.</p>	<p>identified by the reference, the nitrogen level shall be determined by using method 3C of 40 CFR Part 60. Accordingly, Condition 3 – Table 1 (c)(1)(vii)(G) identifies how the oxygen level shall be determined.</p> <p>Conditions 3– Table 1 (c)(1)(vii)(F) and (G) remain unchanged.</p> <p>Sections 4.3.1, 3.1.3, 4.4 and 4.2 of Method 21 identified by Condition 3-Table 1(c)(1)(vii) have been revised. See Pages 24 and 25.</p>
11	Condition 3 – Table 1 (c)(1)(vii)(I) and (J)	These two sections specify testing of H ₂ S (monthly) and NMOCs (quarterly). They state that a "department approved test method" should be used. DSWA requests that the method be specified as a dräger tube for H ₂ S and EPA method 25c for NMOCs.	<p>The permit conditions identified that the monthly H₂S can be done by using dräger tube and the quarterly NMOC test can be done by using EPA Method 25c. The dräger tube tests are not necessarily precise. Therefore, the monthly dräger tube tests are accepted based on the fact that CIL will also identify H₂S concentration in LFG based on ASTM D5504 quarterly. Note that CIL is currently conducting dräger tube monthly and ASTM method D5504 quarterly.</p> <p>Conditions 3 – Table 1 (c)(1)(vii)(I) and (J) have been revised.</p> <p>See Pages 26 and 27.</p>
12	Condition 3 – Table 1 (c)(1)(ix)(J) and (xi)(G)	These sections contain a typo. They both say "al standards". It is unclear what this means.	'al standards' has been revised to 'operational standards'.
13	Condition 3 – Table 1 (c)(2)(x)(B)	This section requires monthly reports be submitted during the decommissioning process. The existing decommissioning procedure already requires significant reporting to the Department. Responses back from the Department are also often delayed by several months. Monthly reporting would generate confusion and unnecessary additional work. It should not be required.	<p>This condition has been revised to: 'Provide a summary report of the monitoring requirements outlined by Condition 3-Table 1(c)(2)(vi)(A)&(B)'.</p> <p>See Condition 3-Table 1(c)(2)(x)(C) on Page 31.</p> <p>Unless otherwise requested, AQM responses all applications/ requests first-come-first basis. As requested, AQM processed CIL's</p>

MEMORANDUM

Title V Significant Permit Modification: DSWA-CIL.

Proposed Permit: AQM-003/00111-Renewal 1(Rev. 2)

November 13, 2009

Page 5

Line Item	Permit Condition	DSWA Comment	Responses/Actions taken by AQM
			requests priority basis in the past.
14	Condition 3 – Table 1 (c)(4)(iii)	This section contains a typo. "Control monitoring system" should be "continuous monitoring system". Additionally, it is unclear what monitoring system it refers to in relation to the wellfield. Please clarify.	'Control monitoring system' is replaced by 'continuous monitoring system'. This section is related to startup, shutdown and malfunction plan. Refer to 40 CFR Part 63.6(e)(3) and 40 CFR Part 63.1960. See Page 33.
15	Condition 3 – Table 1 (d)(1)(x)(B)(2)	This section should include a clarification as follows, "...all periods when the control device was not operating for a period exceeding 1 hour <i>during normal operating hours and 4 hours outside of normal operating hours.</i> "	This condition has been revised. See Page 35.
16	Condition 3 – Table 1 (e)	This emission unit should not be included in the Title V permit. The 55 kW back-up generator in an insignificant activity as per Regulation 30, Appendix A(b)(2).	All emissions from all sources must be counted. In addition to that emergency generators must be in compliance as per 7 DE Admin Code 1144. This condition remains unchanged.
17	Condition 3 – Table 1 (f)(1)(vi)(A)(1) and (2)	DSWA should not be required to calculate and report HAPs emissions, as we do not have any HAPs limits on the control devices and AP-42 does not contain a general HAP emission factor for flares.	DSWA must calculate HAP (HCl) emission since there are lbs/hr and rolling 12-month HCl limits in the permit. See Condition 3-Table 1 (b)(1)(ii)(F). Condition 3 – Table 1 (f)(1)(vi)(A)(1)&(2) have been revised to replace 'HAP' with 'HCl'. See page 39.

Notes

1. DSWA comment #5 above requests AQM to disregard passive flare emissions. As responded to this comment, I do not recommend that this condition should be omitted from the permit since passive flares are being used regularly and they are subject to significant emissions.
2. DSWA comment #6 states that quarterly reporting of flare and H₂S pretreatment system operation is cumbersome and not necessary. This condition should be in the permit as this an ongoing concern that the unit is often not functional. At a minimum, by receiving a quarterly report will keep AQM up-to-date with H₂S pretreatment system.
3. DSWA letter dated 10/5/09 with comments identified an incorrect draft\proposed Title V permit number. The correct number is AQM-003/00111-Renewal 1(Rev. 2)

Recommendations

It is recommended that the attached proposed significant permit modification be sent to DSWA and EPA Region III for review and comments for 45 days.

MEMORANDUM

Title V Significant Permit Modification: DSWA-CIL.

Proposed Permit: AQM-003/00111-Renewal 1(Rev. 2)

November 13, 2009

Page 6

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